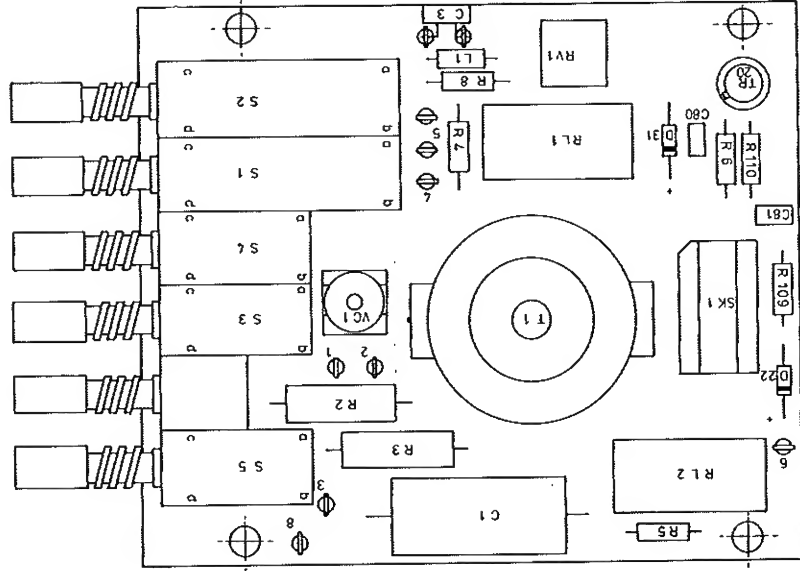


REF.	VALUE	TOL. ± %	RATING	TYPE	PART NO.
TR2	2N3251				0001-0017.342/-
TR3	2N2369A				0000-7542.066/-
TR4	2N2369A				0000-7542.066/-
TR5	BCY71				0001-0016.534/-
TR6	BCY71				0001-0016.534/-
TR8	2N2369A (LOW NOISE)				0001-0017.342/-
TR9	2N3251				0001-0017.342/-
TR10	2N2369A				0000-7542.066/-
TR11	2N2369A				0000-7542.066/-
TR12	2N2369A				0000-7542.066/-
TR13	2N2369A				0000-7542.066/-
TR14	2N2369A				0000-7542.066/-
TR15	2N2369A				0000-7542.066/-
TR16	2N2369A				0000-7542.066/-
TR21	BC109				0000-7602.029/-
TR22	BC109				0000-7602.029/-
TR23	BCY71				0001-0016.534/-
TR24	BCY71				0001-0016.534/-
TR25	BCY71				0001-0016.534/-
D3	1N914 or 1N448				0001-0018.493/-
D4	1N914 or 1N448				0001-0018.493/-
D5	1N914 or 1N448				0001-0018.493/-
D6	1N914 or 1N448				0001-0018.493/-
D18	1N914 or 1N448				0001-0018.493/-
D19	1N914 or 1N448				0001-0018.493/-
D20	1N914 or 1N448				0001-0018.493/-
D21	1N914 or 1N448				0001-0018.493/-
D23	1N914 or 1N448				0001-0018.493/-
D24	1N914 or 1N448				0001-0018.493/-
D25	1N914 or 1N448				0001-0018.493/-
D26	1N914 or 1N448				0001-0018.493/-
D27	1N914 or 1N448				0001-0018.493/-
D28	1N914 or 1N448				0001-0018.493/-
D29	1N914 or 1N448				0001-0018.493/-
D30	1N914 or 1N448				0001-0018.493/-
D38	1N914 or 1N448				0001-0018.493/-
L1	10μH				0000-7556.175/-
RV1	100K				0000-7601.648/-
VC1	2 - 18p				809-05003
VC2	2 - 18p				809-05003
IC1					4001
SK1					SOCKET D.1.1., 14-MAY 0000-7518.388/-
SK2					SOCKET D.1.1., 16-MAY 0000-8518.391/-
RL3					RSD - 12V 0001-0069.620/-
RL4					RSD - 12V 0001-0069.620/-
RL5					RSD - 12V 0001-0069.620/-
RL6					RSD - 12V 0001-0069.620/-
RL7					RSD - 12V 0001-0069.620/-
A22					P.C.B. 4502-0122.004/2
					PRE-AMPLIFIER

Fig. 8 Component Layout, Input Matching unit, (82)



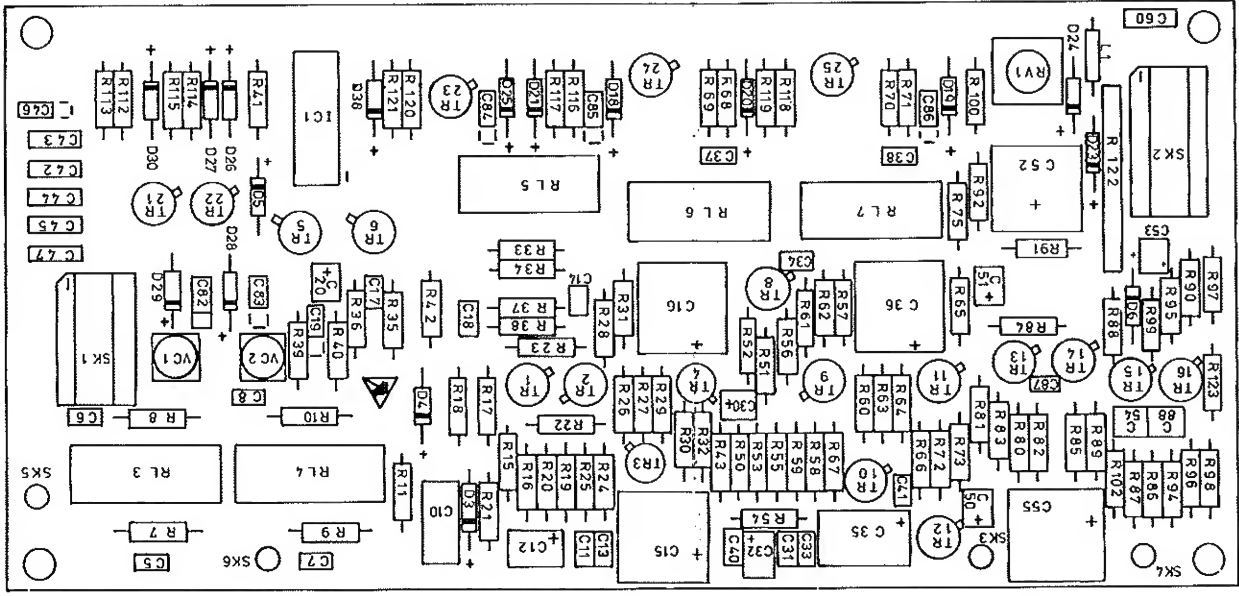
CIRCUIT REFERENCES TO BE PRECEDED BY

BY ASSEMBLY NUMBER

eg. S1 BECOMES S8201

C81 BECOMES C8281

Fig. 9 Component Layout, Pre-amplifier/Attenuator, (22)



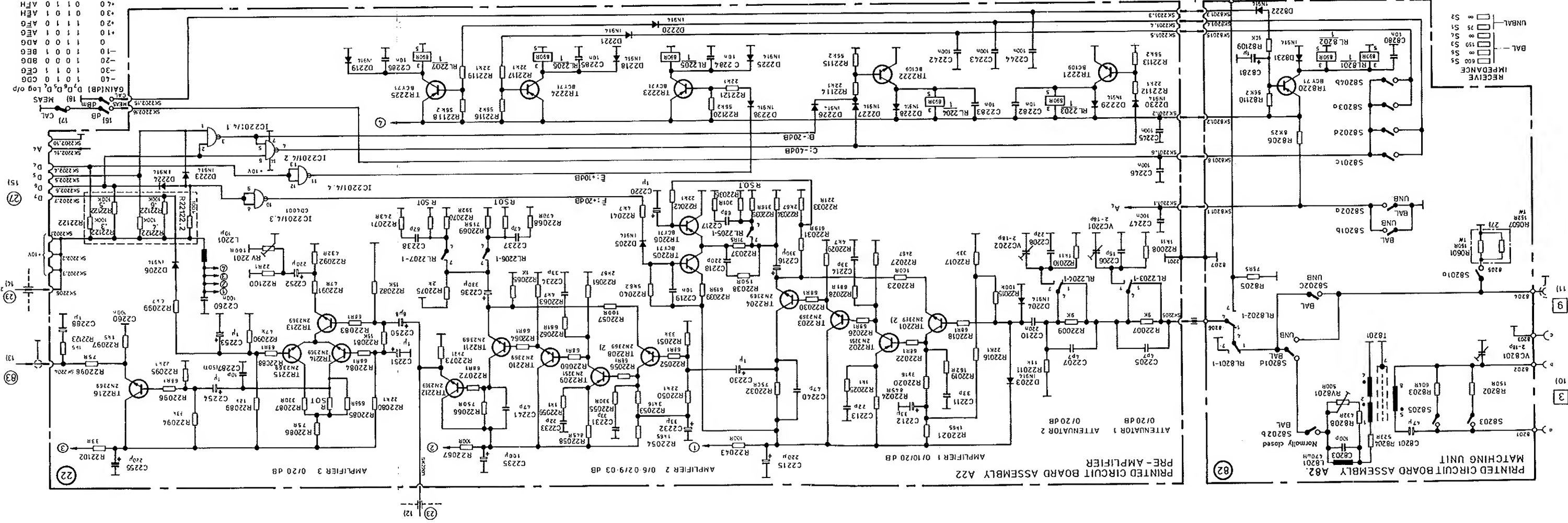
CIRCUIT REFERENCES TO BE PRECEDED BY

BOARD ASSEMBLY NUMBER

eg. C60 BECOMES C2260

TR4 BECOMES TR2204

Fig. 7 Circuit Diagram, Input Matching unit, (82) and Pre-amplifier/Attenuator, (22)



ASSEMBLY FOR P.C.B. A23 MIXER 1

REF.	VALUE	TOL. ± %	RATING	TYPE	PART NO.
R1	301R	1	OW35	NF	0001-0000,799/-
R2	301R	1	OW35	NF	0001-0000,799/-
R3	33K	2	OW25	NF	4980-0000,009/-
R4	56K2	1	OW35	NF	0001-0002,797/-
R5	68R1	1	OW35	NF	0001-0000,427/-
R6	511R	1	OW35	NF	0001-0003,770/-
R7	68R1	1	OW35	NF	0001-0000,427/-
R8	100R	1	OW35	NF	0001-0000,427/-
R9	1K	1	OW35	NF	0001-0001,219/-
R10	100R	1	OW35	NF	0001-0000,537/-
R11	56R2	1	OW35	NF	0001-0000,346/-
R12	470R	2	OW25	NF	0000-7560,608/-
R13	56K2	1	OW35	NF	0001-0002,797/-
R14	33K	2	OW25	NF	4980-0000,009/-
R15	68R1	1	OW35	NF	0001-0000,427/-
R16	1K	1	OW35	NF	0001-0001,219/-
R17	68R1	1	OW35	NF	0001-0000,427/-
R18	100R	1	OW35	NF	0001-0000,537/-
R19	2K21	1	OW35	NF	0001-0001,497/-
R20	150R(466/1)1	1	OW35	NF	0001-0000,618/-
or 100R(466/2)1			OW35	NF	0001-0000,537/-
R21	100R	1	OW35	NF	0001-0000,537/-
R30	82R5	1	OW35	NF	0001-0000,537/-
R31	56K2	1	OW35	NF	0001-0000,472/-
R32	33K	2	OW25	NF	4980-0000,009/-
R33	68R1	1	OW35	NF	0001-0000,427/-
R34	1K	1	OW35	NF	0001-0001,219/-
R35	68R1	1	OW35	NF	0001-0000,427/-
R36	1K5	1	OW35	NF	0001-0001,358/-
R37	56R2	1	OW35	NF	0001-0000,346/-
R38	100R	1	OW35	NF	0001-0000,537/-
R39	10K	1	OW35	NF	0001-0002,137/-
R40	10K	1	OW35	NF	0001-0002,137/-
R41	1K8	2	OW25	NF	0001-0014,510/-
R42	22K1	1	OW35	NF	0001-0002,441/-
R43	100R	2	OW35	NF	0001-0000,537/-
R44	10K	2	OW35	NF	0001-0002,137/-
R45	8K25	1	OW35	NF	0001-0002,056/-
R46	2K21	1	OW35	NF	0001-0001,497/-
R47	357R	1	OW35	NF	0001-0000,867/-
R51	56R2	1	OW35	NF	0001-0000,346/-
R55	68R1	1	OW35	NF	0001-0000,427/-
R56	68R1	1	OW35	NF	0001-0000,427/-
R57	68R1	1	OW35	NF	0001-0000,427/-
R58	68R1	1	OW35	NF	0001-0000,427/-
C1	240P	2	63	PF	0000-7598,476/-
C2					
C3	1n	2	63	PF	0000-7564,552/-
C4					
C5	1n	2	63	PF	0000-7564,552/-
C6					
C7	240P	2	63	PF	0000-7598,476/-
C8	47n	20	6.3	Tant.	0001-0041,059/-
C9	330n	20	6.3	Tant.	0001-0041,211/-
C10	100n	20	6.3	Tant.	0001-0041,156/-
C11	1n	10	63	Cer.	0001-0004,698/-
C12	100n	20	100	Cer.	0000-7598,450/-
C13	100n	20	100	Cer.	0000-7598,450/-
C14	100n	20	100	Cer.	0000-7598,450/-

ASSEMBLY P.C.B. A24 4MHZ BANDPASS FILTER (used on A66/1 or 2)

REF.	VALUE	TOL. ± %	RATING	TYPE	PART NO.
C20	10n	20	100	Cer.	0001-0004.818/-
C21	10n	20	100	Cer.	0001-0004.818/-
C22	100n	20	100	Cer.	0000-7598.450/-
C23	100n	20	100	Cer.	0000-7587.450/-
C24	100n	20	100	Cer.	0000-7587.450/-
C26	100n	20	100	Cer.	0000-7587.450/-
C27	100n	20	100	Cer.	0000-7587.450/-
C28	33p	2	63	Cer.	0001-0004.342/-
C29	12p	2	63	Cer.	0001-0004.203/-
C30	15p(A66/1)2	2	63	Cer.	0001-0004.229/-
C31	4p7	0.25	63	Cer.	0001-0004.083/-
C32	4p7	0.25	63	Cer.	0001-0004.083/-
C33	12p	2	63	Cer.	0001-0004.203/-
TR1	2N2369A				0000-7542.066/-
TR2	2N3251				0001-0017.342/-
TR3	2N2369A				0000-7542.066/-
TR4	2N3251				0001-0017.342/-
TR5	2N2369A				0000-7542.066/-
TR6	2N3251				0001-0017.342/-
TR7	2N2369A				0000-7542.066/-
TR8	2N2369A				0000-7542.066/-
TR9	2N918				0001-0016.738/-
TR10	2N918				0001-0016.738/-
TL	TRANSFORMER				4502-1301.002/4
T2	TRANSFORMER				4502-1302.001/4
T3	TRANSFORMER				4502-1307.006/4
L1	INDUCTOR	27µH			4502-1420.006/4
L2	INDUCTOR	25µH			4502-1421.005/4
L3	INDUCTOR	27µH			4502-1420.006/4
L4	INDUCTOR	39µH			0000-7556.243/-
X1	MIXER, 1769				4747-0000.004/2
PL1	HOUSING WN 119/8/3				0000-2687.065/6
	PLUG, BULKHEAD				0000-2686.008/5
	WN 119/8/3				0000-2687.078/5
	RING				0000-2687.058/5
	SCREW				0000-1637.058/5
A23	P.C.B. MIXER 1				4502-0123.003/3

REF.	VALUE	TOL. ± %	RATING	TYPE	PART NO.
SKI	COAX. CONNECTOR				0000-2686.008/5
X1	CRYSTAL FILTER SK1592/D (used on A66/1)				0000-7602.731/-
X1	CRYSTAL FILTER SK1607/D (used on A66/2)				0000-7602.728/-
A24	P.C.B. 4MHz FILTER, (Complete with components)				4502-1024.004/3

REF.	VALUE	TOL. ± %	RATING	TYPE	PART NO.
N1	150R(A66/1)1		0M35	MF	0001-0000.618/-
N2	56k2	1	0M35	MF	0001-0002.797/-
R3	33k	2	0M25	MF	4980-0000.009/-
R4	68k1	1	0M35	MF	0001-0000.427/-

REF.	VALUE	TOL. ± %	RATING	TYPE	PART NO.
N1	150R(A66/1)1		0M35	MF	0001-0000.618/-
N2	100R(A66/2)1		0M35	MF	0001-0000.537/-
R2	56k2	1	0M35	MF	0001-0002.797/-
R3	33k	2	0M25	MF	4980-0000.009/-
R4	68k1	1	0M35	MF	0001-0000.427/-

REF.	VALUE	TOL. ± %	RATING	TYPE	PART NO.
N1	150R(A66/1)1		0M35		

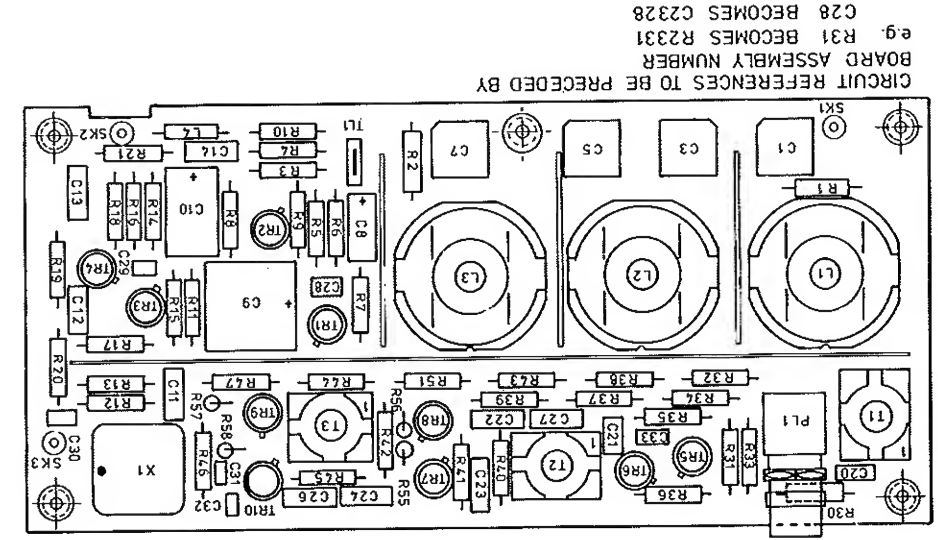
ASSEMBLY P.C.B. A79 MIXER 2

REF.	VALUE	TOL. \pm %	RATING	TYPE	PART NO.
R5	1k	1	OM35	MF	0001-0001.219/-
R6	68k1	1	OM35	MF	0001-0000.427/-
R7	2k21	1	OM35	MF	0001-0001.497/-
R8	56k2	1	OM35	MF	0001-0000.346/-
R9	100k	1	OM35	MF	0001-0000.537/-
R10	10k	1	OM35	MF	0001-0000.074/-
C2	15p(A66/1)2	63		Cer.	0001-0004.229/-
	22p(A66/2)5	100		Cer.	0001-0004.290/-
C3	10n	20	100	Cer.	0001-0004.818/-
C4	22n	20	100	Cer.	0001-0006.418/-
C5	22n	20	100	Cer.	0001-0006.418/-
C6	100p	20	6.3	Tant.	0001-0041.156/-
C7	12p	2	63	Cer.	0001-0004.203/-
T81					0000-7542.066/-
					2N2369A
					2N3251
					0001-0017.342/-
A24					P.C.B., 4MHz BANDPASS
					FILTER (less components)
					4502-0124.002/3

REF. VALUE TOL. ± % RATING TYPE PART NO.

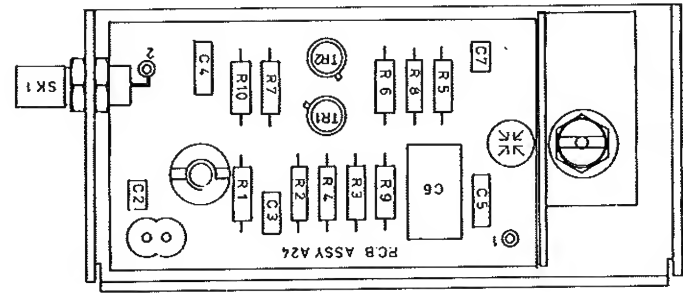
C6	470p	2	63	PF	0000-7598.421/-
C7	470p	2	63	PF	0000-7598.421/-
C8	1u	20	35	Tant.	0001-0040.704/-
C9	1u	20	35	Tant.	0001-0040.704/-
C10	100u	20	10	Tant.	0001-0041.156/-
C18	1u	20	6.3	Tant.	0001-0040.704/-
C19	22p	2	63	Cer.	0001-0004.290/-
C20	10u	20	6.3	Tant.	0001-0040.885/-
C21	22n	20	40	Cer.	0001-0006.418/-
C22	22n	20	40	Cer.	0001-0006.418/-
C23	22n	20	40	Cer.	0001-0006.418/-
C24	33p	2	63	Cer.	0001-0004.342/-
C27	39p	2	63	Cer.	0001-0004.371/-
C28	39p	2	63	Cer.	0001-0004.371/-
C29	1u	20	35	Tant.	0001-0040.704/-
C30	3n79	1	63	PF	0000-7598.434/-
C31	6n49	1	63	PF	0000-7598.502/-
C32	10n9	1	63	PF	0000-7598.515/-
C33	3n24	1	63	PF	0000-7598.492/-
C34	2n8	1	63	PF	0000-7598.489/-
C35	4n22	1	63	PF	0000-7598.573/-
C36	6n57	1	63	PF	0000-7598.586/-
C37	8n66	1	63	PF	0000-7557.682/-
C38	3n61	1	63	PF	0000-7598.609/-
C39	9n31	1	63	PF	0000-7586.080/-
C40	9n65	1	63	PF	0000-7598.612/-
C41	2n1	1	63	PF	0000-7598.625/-
C42	4n99	1	63	PF	0000-7598.638/-
C43	1n87	1	63	PF	0000-7598.641/-
C44	8n16	1	63	PF	0000-7598.654/-
C45	18n9	1	63	PF	0000-7598.667/-
C46	2n43	1	63	PF	0000-7598.599/-
C47	13n2	1	63	PF	0000-7598.670/-
C50	22p	2	63	Cer.	0001-0004.290/-
C51	22p	2	63	Cer.	0001-0004.290/-
TR1	2N2369A				0000-7542.066/-
TR2	2N3251				0001-0017.342/-
TR3	BC 109				0000-7602.029/-
TR4	2N2369A				0000-7542.066/-
TR5	2N2369A				0000-7542.066/-
TR6	2N2369A				4502-1000.002/-
TR7	2N2369A				Pair
D1	1N914 or 1N4448				0001-0019.493/-
RV1	200K	20	OM	Var.	0000-7579.013/-
IC1	5534				0000-7513.257/-
T1	TRANSFORMER				4502-1301.002/4
T2	TRANSFORMER				4502-1302.001/4
T3	TRANSFORMER				4502-1303.000/4
L1	INDUCTOR				4502-1438.001/4
L2	INDUCTOR				4502-1439.004/4
L3	INDUCTOR				4502-1440.002/4
L4	INDUCTOR				4502-1441.001/4
L5	INDUCTOR				4502-1442.000/4
L6	INDUCTOR				4502-1443.009/4
L7	INDUCTOR				4502-1444.008/4
L8	INDUCTOR				4502-1445.007/4
L9	INDUCTOR				4502-1446.006/4
L10	INDUCTOR				4502-1447.005/4
A79	P.C.B. MIXER 2				4502-0248.001/2

Fig. 11 Component Layout, Mixer 1, 23



CIRCUIT REFERENCES TO BE PRECEDED BY BOARD ASSEMBLY NUMBER
e.g. R31 BECOMES R2331
C28 BECOMES C2328

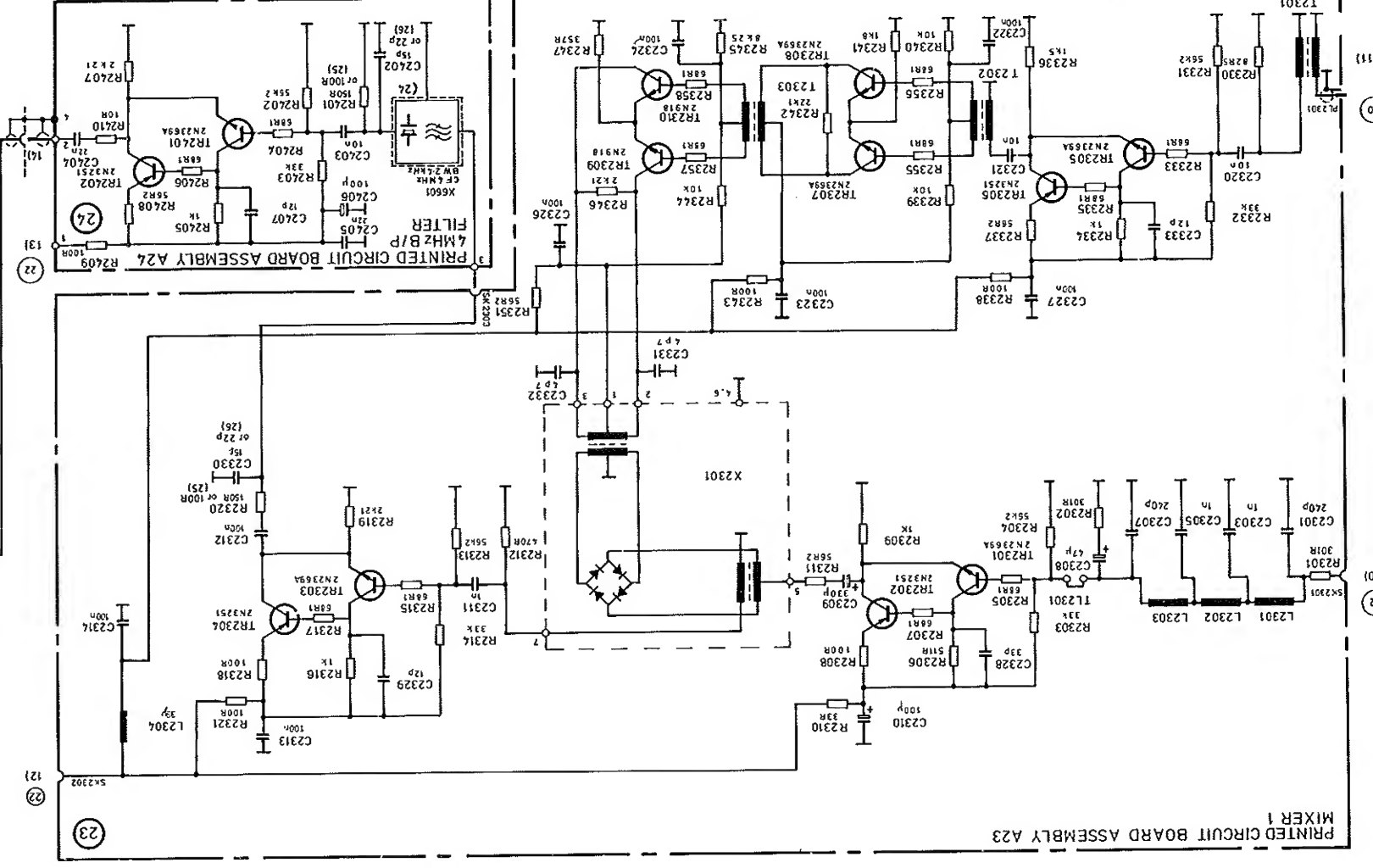
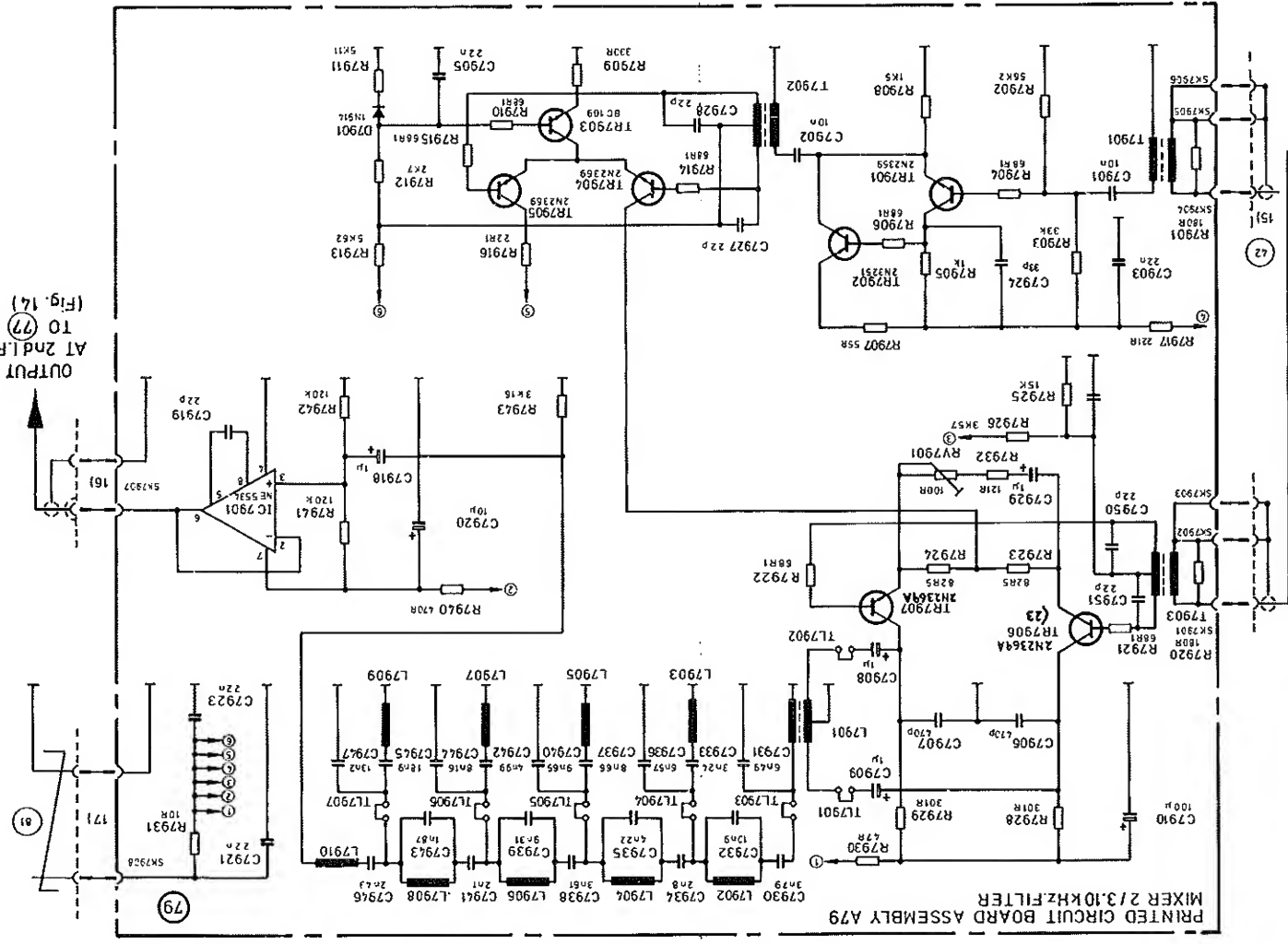
Fig. 12 Component Layout, 4MHz B/P Filter, 24



CIRCUIT REFERENCES TO BE PRECEDED BY BOARD ASSEMBLY NUMBER e.g. C6 BECOMES C2406
COMPONENT X1 BECOMES X6601
AND SK1 BECOMES SK6601

Fig. 10

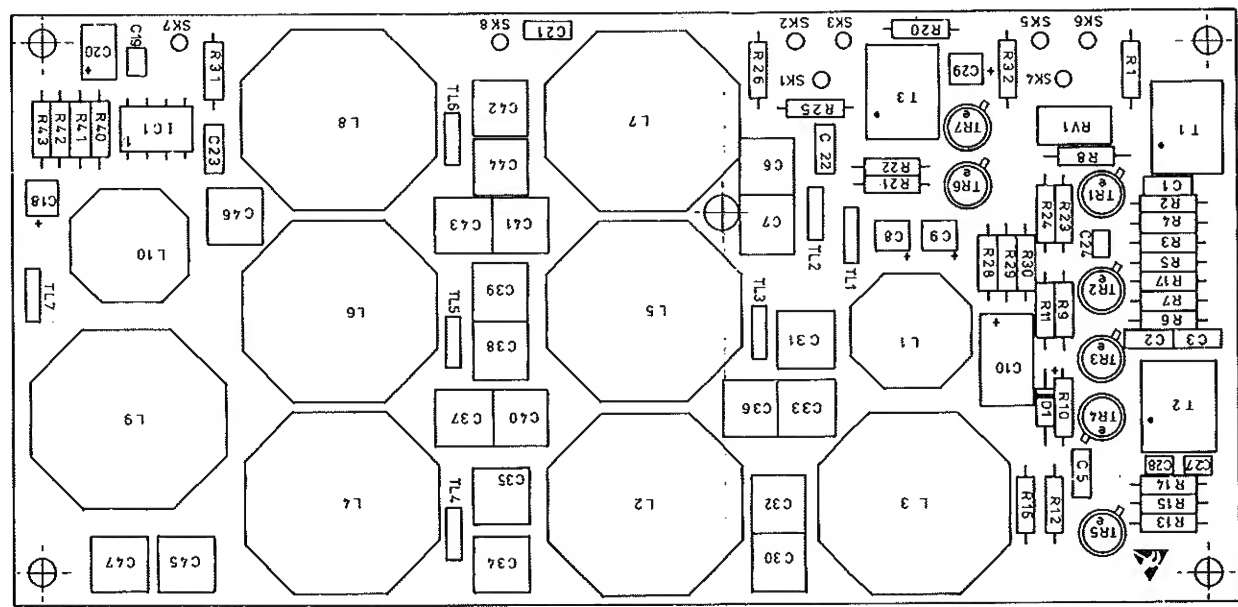
Circuit Diagram, Mixer 1, 23 ;
4MHz B/P Filter, 24 and
Mixer 2/3.1KHz Filter, 79



NOTES 1) Suffix a on edge connector denotes component side. b denotes non-component side.

- 10) 10S16 1/p 200KHz (-40dB)
- 11) L.O. 1/p 4-4.62 MHz
- 12) 10V from pre-amp
- 13) 10V
- 14) 0/p 1st IF 4MHz (-57dB)
- 15) INPUT L.O. 4.01MHz
- 16) OUTPUT 2nd IF (-40dB)
- 17) 10V
- 23) TR7906 & TR7907 TO BE MATCHED PAIR
- 24) X2401 FILTER TO A66 FILTER UNIT ASSEMBLY.

Fig. 13



CIRCUIT REFERENCES TO BE PRECEDED BY BOARD ASSY NUMBER.
e.g. C3 BECOMES C7903
R25 BECOMES R7925

Component Layout, Mixer 2/3.1KHz Filter, 79

ASSEMBLY P.C.B. A27 I.F. AMPLIFIER

REF.	VALUE	TOL. ± %	RATING	TYPE	PART NO.
R1	150K	1	0W35	MF	0001-0003,110/-
R2	82K5	1	0W35	MF	0001-0002,933/-
R3	39K2	1	0W35	MF	0001-0002,658/-
R4	68R1	1	0W35	MF	0001-0000,427/-
R5	4 × 10K	2	0W25	RESISTOR PACK S.I.L.	0000-7604,535/-
R6	3K01	1	0W35	MF	0001-0001,620/-
R7	4 × 10K	2	0W25	RESISTOR PACK S.I.L.	0000-7604,535/-
R8	180K	2	0W25	MF	0000-7601,392/-
R9	180K	2	0W25	MF	0000-7601,392/-
R10	1M	1	0W35	MF	0000-0027,507/-
R11	2K21	1	0W35	MF	0001-0001,497/-
R12	180K	2	0W25	MF	0000-7601,392/-
R13	10K	1	0W35	MF	0001-0002,137/-
R14	221R	1	0W35	MF	0001-0000,715/-
R15	180K	2	0W25	MF	0000-7601,392/-
R16	180K	2	0W25	MF	0000-7601,392/-
R17	180K	2	0W25	MF	0000-7601,392/-
R18	1M	1	0W35	MF	0000-0027,507/-
R19	2K21	1	0W35	MF	0001-0001,407/-
R20	180K	2	0W25	MF	0000-7601,392/-
R21	10K	1	0W35	MF	0001-0002,137/-
R22	180K	2	0W25	MF	0000-7601,392/-
R23	221R	1	0W35	MF	0001-0000,715/-
R24	47R	2	0W25	MF	0000-7601,321/-
R25	3K92	1	0W35	MF	0001-0001,730/-
R26	47K	2	0W25	MF	0000-7558,393/-
R27	150K	1	0W35	MF	0001-0003,110/-
R28	1M	1	0W35	MF	0000-0027,507/-
R29	3K3	2	0W25	MF	4980-0000,012/-
R30	5K11	1	0W35	MF	0001-0001,853/-
R31	5K11	1	0W35	MF	0001-0001,853/-
R32	21K5	1	0W35	MF	0001-0002,438/-
R33	21K5	1	0W35	MF	0001-0002,438/-
R34	21K5	1	0W35	MF	0001-0002,438/-
R35	470R	2	0W25	MF	0000-7560,608/-
R36	6K34	1	0W35	MF	0001-0001,947/-
R37	169K	1	0W35	MF	0001-0003,136/-
R38	1K78	1	0W35	MF	0001-0003,796/-
R39	169K	1	0W35	MF	0001-0003,136/-
R40	26R7	2	0W25	MF	0001-0000,207/-
C1	2μ2	20	35	Tant.	0001-0040,762/-
C2	4μ7	20	10	Tant.	0001-0040,801/-
C3	1n	10	63	Cer.	0001-0004,698/-
C4	47μ	20	16	Tant.	0001-0041,062/-
C5	220n	10	100	PE	0001-0010,404/-
C6	10n	20	100	Cer.	0001-0004,818/-
C7	100n	20	100	PE	0001-0010,365/-
C8	22p	2	63	Cer.	0001-0004,290/-
C9	100n	20	100	PE	0001-0010,365/-
C10	10n	20	100	Cer.	0001-0004,818/-
C11	1n	10	63	Cer.	0001-0004,698/-
C12	100n	10	100	PE	0001-0010,365/-
C13	47μ	20	6.3	PE	0001-0041,062/-
C14	100n	10	100	PE	0001-0010,365/-
C15	100n	10	100	PE	0001-0010,365/-
C16	220n	10	100	PE	0001-0010,404/-
C17	10n	20	100	Cer.	0001-0004,818/-
C18	22p	2	63	Cer.	0001-0004,290/-
C19	100n	10	100	PE	0001-0010,365/-
C20	10n	20	100	Cer.	0001-0004,818/-
C21	100n	10	100	PE	0001-0010,365/-
C22	1n	10	63	Cer.	0001-0004,698/-
C23	47μ	20	6.3	Tant.	0001-0041,062/-
C24	10n	20	100	Cer.	0001-0004,818/-
C25	470n	10	100	PE	0001-0010,446/-
C26	220n	10	100	PE	0001-0010,404/-
C27	10n	20	100	Cer.	0001-0004,818/-
C28	82p	2	63	Cer.	0001-0004,481/-
C29	680p	2	63	PE	0000-7598,531/-
C30	68μ	20	16	Tant.	0001-0041,114/-
C31	220p	2	63	PE	0000-7598,544/-
C32	3n3	2	63	PE	0000-7598,560/-
C33	47p	2	63	Cer.	0001-0004,397/-
C34	2n2	2	63	PE	0000-7573,695/-
C35	2n2	2	63	PE	0000-7573,695/-
C36	2n2	2	63	PE	0000-7573,695/-
C37	220μ	20	10	Tant.	0001-0041,208/-
C38	220n	10	100	PE	0001-0010,404/-
C39	100n	10	100	PE	0001-0010,365/-
C40	1n	10	63	Cer.	0001-0004,698/-
TR1				BC109 C	0000-7602,126/-
D1	1N914 or 1N4448				0001-0018,493/-
D2	1N914 or 1N4448				0001-0018,493/-
D3	1N914 or 1N4448				0001-0018,493/-
D4	1N914 or 1N4448				0001-0018,493/-
D5	1N914 or 1N4448				0001-0018,493/-
D6	1N914 or 1N4448				0001-0018,493/-
D7	1N914 or 1N4448				0001-0018,493/-
D8	1N914 or 1N4448				0001-0018,493/-
D9	1N914 or 1N4448				0001-0018,493/-
D10	1N914 or 1N4448				0001-0018,493/-
D11	1N914 or 1N4448				0001-0018,493/-
D12	1N914 or 1N4448				0001-0018,493/-
IC1					0001-0067,554/-
IC2					0000-7513,257/-
IC3					0001-0070,897/-
IC4					0001-0070,907/-
IC5					0001-0067,554/-
IC6					0001-0070,897/-
IC7					0000-7513,257/-
IC8					0001-0067,554/-
IC9					0001-0070,761/-
IC10					0000-7513,309/-
IC11					0000-7601,965/-
IC12					0001-0015,962/-
T1					4502-1310,006/4
T2					4502-1310,006/4
T3					4502-1311,005/4
PL1					HOUSING WNI19/8/3
					0000-2687,065/6
					PLUG BULKHEAD
					WNI19/8/3
					0000-2686,008/5
					RING
					0000-2687,078/5
					SCREW
					0000-1637,058/5
					P.C.B. I.F. AMPLIFIER 4502-0127,009/2